

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A picture coding apparatus, comprising:

a picture analyzing unit for analyzing source picture data to obtain coding difficulty information;

a picture conversion unit for temporally converting a picture format of the source picture data to reduce temporally-redundant information, the picture conversion unit including:

a bandwidth filter;

a pel count converter;

a frame/field decimation unit that decimates redundant frames and fields;

a scan converter that converts the image signal received from the frame/field decimation unit to block scan data; and

a preprocess controller that controls the frame/field decimation unit, pel count converter and scan converter based on the coding difficulty information;

a coding unit for encoding picture data converted by the picture conversion unit; and

a conversion controller for controlling the picture conversion unit based on the coding difficulty information to convert the picture format using at least temporal conversion.

2. (Original) A picture coding apparatus as described in claim 1, wherein the coding difficulty information is information about the source picture data, including at least one of: spatial frequency component information, noise component information, interframe change information, and interframe motion vector information.

3. (Original) A picture coding apparatus as described in claim 1 or 2, wherein the coding unit encodes picture data based on conversion information input thereto by the picture conversion unit, and multiplexes the conversion information to the picture data.

4. (Previously Presented) A picture coding apparatus as described in any of claims 1 to 2, wherein the picture analyzing unit analyzes the source picture data using a specific threshold value.

5. (Original) A picture coding apparatus as described in claim 4, wherein the picture analyzing unit determines the threshold value based on a coding result from the coding unit.

Claims 6-20 (Canceled).

21. (Currently Amended) A picture conversion method for use with a picture coding method for coding source picture data after picture conversion, comprising:

temporally converting a picture data format based on coding difficulty information using at least temporal conversion to reduce temporally-redundant information by filtering the picture data through a bandwidth filter;

processing the filtered picture data through a pel count converter;

decimating redundant frames and fields of the picture data through a frame/field decimation unit;

converting the decimated picture data to block scan data by a scan converter; and

controlling the frame/field decimation unit, pel count converter, and scan converter based on the coding difficulty information by a preprocess controller.

22. (Original) A picture coding method as described in claim 21, wherein the coding difficulty information is information about the source picture data, including at least one of: spatial frequency component information, noise component information, interframe change information, and interframe motion vector information.

Claims 23-27 (Canceled).

28. (Previously presented) The apparatus of claim 1, wherein said temporal conversion being performed using at least a frame/field decimator eliminating redundant frame(s) and/or field(s).

29. (Previously Presented) The apparatus of claim 1, wherein said coding unit to encode the picture data based on conversion information being input by said conversion controller.

30. (Previously Presented) The apparatus of claim 1, wherein said conversion controller to convert the picture format using both said temporal conversion and spatial conversion.

31. (Previously Presented) The method of claim 21, wherein said converting includes converting the picture data format based on coding difficulty information using both said temporal conversion and spatial conversion.

32. (Currently Amended) A method for coding a picture, comprising:
determining coding difficulty information from input source picture data;
temporally converting a picture format of the source picture data to reduce temporally-redundant information by:
filtering the source picture data through a bandwidth filter;
processing the filtered picture data through a pel count counter;
decimating redundant frames and fields of the picture data through a frame/field decimation unit;
converting the decimated picture data to block scan data by a scan converter; and
controlling the frame/field decimation unit, pel count converter and scan converter based on a coding difficulty information determined from the source picture data by a preprocess controller;
encoding picture data converted by the picture conversion unit; and
controlling the converting of the picture format based on the coding difficulty information using at least temporal conversion.

33. (Previously Presented) The method of claim 30, further comprising controlling the encoding based on conversion information determined from said converting.

34. (Currently Amended) A picture coding method as described in claim ~~20~~ 21, said temporally converting step eliminating redundant frames and/or fields.

35. (Previously presented) The method of claim 32, said temporally converting step eliminating redundant frames and/or fields from the source picture data.